

PTO/SB/08A (10-88)
Approved for use through 10/31/99. OMB 0551-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Distribution of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete If Known to 758,561

Application Number	NOT YET ASSIGNED 7-01
Filing Date	5/1/04
First Named Inventor	DICKINSON, et al
Group An Unit	NOT YET ASSIGNED 2823
Examiner Name	NOT YET ASSIGNED A2-6
Attorney Docket Number	LUX - P017

(use as many sheets as necessary)

Sheet 1 of 5

[illegible][illegible]

**Examiner
Signature**

B. Healy

Date
Considered

9/8/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Substitute for form 1449B/PTO		Complete If Known 10/758,561	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	NOT YET ASSIGNED
		Filing Date	1/19/04
		First Named Inventor	DICKINSON, et al
		Art Unit	NOT YET ASSIGNED 2883
		Examiner Name	NOT YET ASSIGNED H291y
Sheet 2 of 5	Attorney Docket Number	LUX-PO17	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T‡
BWH	1.	"SCALING OPTOELECTRONIC-VLSI CIRCUITS INTO THE 21ST CENTURY: A TECHNOLOGY ROADMAP". ASHOK V. KRISHNAMOORTHY, MEMBER, IEEE, AND DAVID A.B. MILLER, FELLOW IEEE; IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS, VOL. 2, NO. 1, APRIL 1996	
QMB	2.	"OPTICAL INTERCONNECTS TO SILICON". DAVID A.B. MILLER IEEE JOURNAL ON SELECTED TOPICS IN QUANTUM ELECTRONICS VOL. 6, NO. 6, NOVEMBER/DECEMBER 2000	
BWH	3.	"CHALLENGES IN OPTICALLY INTERCONNECTING ELECTRONICS" FRANK A.P. TOOLEY, MEMBER, IEEE. IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS VOL. 2, NO. 1, APRIL 1996.	
BWH	4.	"OPTICAL INTERCONNECTS: OUT OF THE BOX FOREVER?" DAWEI HUANG, MEMBER, IEEE, THERESA SZE, MEMBER, IEEE, ANDERS LANDIN, RICK LYTEL, MEMBER IEEE, AND HOWARD L. DAVIDSON, SENIOR MEMBER, IEEE	

Examiner Signature	<i>B. Healy</i>	Date Considered	9/8/05
--------------------	-----------------	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
† Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
‡ This collection of information is required by 37 CFR 1.87 and 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Approved for use through 05/30/2003, OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO		Complete if Known 10/758,561	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	NOT YET ASSIGNED
		Filing Date	1/14/04
		First Named Inventor	Dickinson, et al
		Art Unit	Not Yet Assigned 2883
		Examiner Name	Not Yet Assigned Healy
Sheet 3	of 5	Attorney Docket Number	LUX - P017

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
BUT	5.	"VERY SHORT REACH OPTICAL INTERCONNECTS IN SYSTEMS: THE CASE FOR FIBER-TO-THE-PROCESSOR" The University of Southern California ; http://www.usc.edu/alevi ; A.F.J. Levi ; OPTICAL DIGITAL COMMUNICATION SEMINAR ON MAY 21, 2001.	
BUT	6.	"HIGH-SPEED OPTOELECTRONIC VLSI SWITCHING CHIP WITH >4000 OPTICAL I/O BASED ON FLIP-CHIP BONDING OF MQW MODULATORS AND DETECTORS TO SILICON CMOS" Anthony L. Lentine, Keith W. Goossen, J. A. Walker Leo, ARTHUR D'ASARO, P. Hui, D. J. Tseng, R. E. Leibenguth, J. E. Cunningham, W. Y. Jan, Jen-Ming Kuo, D. W. Dahringer, D. P. Kossios	
BUT	7.	HETEROGENEOUS INTEGRATION OF OE ARRAYS WITH Si ELECTRONICS AND MICROOPTICS: YUE LIU ; IEEE TRANSACTIONS ON ADVANCED PACKAGING, VOL. 25, NO. 1, FEBRUARY 2002.	

Examiner Signature	B. Healy	Date Considered	9/8/05
--------------------	-----------------	-----------------	---------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
† Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1649B/PTO		Complete if Known <u>10/758,561</u>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	<u>NOT YET ASSIGNED</u>
		Filing Date	<u>1/14/04</u>
		First Named Inventor	<u>Dickinson, et al</u>
		Art Unit	<u>Not Yet Assigned 2883</u>
		Examiner Name	<u>Not Yet Assigned Healy</u>
Sheet <u>4</u> of <u>5</u>	Attorney Docket Number	<u>LUX-2017</u>	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T‡
<u>BuH</u>	<u>8</u>	<u>"FIBER WEIGHED FOR CHIP INTERCONNECT", WWW.CMPNET.COM.</u> <u>By ANTHONY CATALDO, OCT 12, 2001 ;</u> <u>URL: http://www.eetimes.com/story/OEG_2001101250061</u>	
<u>BuH</u>	<u>9</u>	<u>"EVALUATION OF ADVANCED OPTOELECTRONIC INTERCONNECT</u> <u>TECHNOLOGY" By JANICE ONANIAN McMATHON, TOM EMBERLEY,</u> <u>MIT LINCOLN LABORATORY ; 30 JULY 2001.</u>	
<u>BuH</u>	<u>10</u>	<u>"PROSPECTS OF CMOS TECHNOLOGY FOR HIGH SPEED OPTICAL</u> <u>COMMUNICATION CIRCUIT". BEHZAD RAZAVI, SENIOR MEMBER,</u> <u>IEEE; IEEE JOURNAL OF SOLID-STATE CIRCUITS, VOL. 37, NO. 9.</u> <u>SEPTEMBER 2002.</u>	
<u>BuH</u>	<u>11</u>	<u>"ADVANCE IN SILICON-ON-INSULATOR OPTOELECTRONICS."</u> <u>B. JALALI, S. YEGHANABAYAN, T. YOON, T. YOSHIMOTO,</u> <u>I. RENDINA, AND F. COPPINGER.</u> <u>IEEE JOURNAL ON SELECTED TOPICS IN QUANTUM ELECTRONICS</u> <u>VOL. 4, NO. 6, NOVEMBER/DECEMBER 1998.</u>	

Examiner Signature	<u>B. Healy</u>	Date Considered	<u>9/8/05</u>
--------------------	-----------------	-----------------	---------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 † Applicant's unique citation designation number (optional). ‡ Applicant is to place a check mark here if English language Translation is attached.
 This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Approved for use through 06/30/2003. OMB 0551-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO		Complete If Known 19758,561	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	NOT YET ASSIGNED
		Filing Date	1/14/04
		First Named Inventor	Dickinson, et al
		Art Unit	Not yet Assigned 2883
		Examiner Name	Not yet Assigned Healy
Sheet 5	of 5	Attorney Docket Number	LUX-7017

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ¹
GW	12.	"INTEGRATED OPTICS IN SILICON AND SiGe- HETEROSTRUCTURES" Schüppert, et al ; JOURNAL OF LIGHTWAVE TECHNOLOGY VOL. 14, NO. 10, OCTOBER 1996	
GW	13.	"NANOTAPER FOR COMPACT MODE CONVERSION"; Almeida, et al ; OPTICS LETTERS /VOL. 28 NO. 15 /AUG 1, 03	
GW	14.	"ULTRA-LOW LOSS PHOTONIC INTEGRATED CIRCUIT WITH MEMBRANE-TYPE PHOTONIC CRYSTAL WAVEGUIDES." 3 NOVEMBER 2003 / VOL. 11, No. 22 / OPTICS EXPRESS 2929, SHARON J. McNAB, NIKOLAJ MOLL, AND YURI A VLASOV	

Examiner Signature	B. Healy	Date Considered	9/8/05
--------------------	-----------------	-----------------	---------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.